

ABSTRACT OF THE DISCLOSURE

The present invention comprises a one-step method of etching and desmutting aluminum and its alloys. The method comprises exposing articles made of aluminum and its alloys to a liquid etching/desmutting composition. The liquid composition comprises water and an acid source comprising sulfuric acid and nitric acid, a non-fluorine etchant source comprising phosphoric acid, and a stabilized oxidant. A particularly preferred liquid composition suitable for the etching and simultaneous desmutting of aluminum and aluminum alloys, comprises water and diluted sulphuric acid, nitric acid, phosphoric acid, molybdate and/or condensed molybdate ions, a perfluoroalkyl sulfonate, and aluminum sulfate.